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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 28

Application Number: 09/411,106

Filing Date: October 04, 1999

Appellant(s): ALLEMAN ET AL.

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Robert V. Vickers
For Appellant

Supplemental EXAMINER'S ANSWER

This is in response to the appeal brief filed 5/1/02 and the remand of 11/6/03.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is substantially correct. A correct statement of the status of the claims is as follows:

Claim 51 has been canceled. The 35 U.S.C. 112, first paragraph rejections of claims 71-73 and 82 has not been maintained. The 35 U.S.C. 112, second paragraph rejections of claims 29-31 has not been maintained. The remaining 35 U.S.C. 112, first paragraph rejection of claims 48-61 and 72-82 has been maintained and is included in the Grounds of Rejection below.

The rejections made under 35 U.S.C. 103(a) have been partially maintained as claims 2, 7, 11, 56, and 75 (previously rejected) are now indicated as having allowable subject matter. These claims contain allowable subject matter and are allowable if independent or would be allowable if rewritten in independent form to include all of the limitations of the parent claims and any intervening claims and also if rewritten to overcome any rejection(s) under 35 U.S.C.

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112. Subsequently any and all claims dependent from claims 2, 7, 11, 56, and 75 are allowable insomuch as they depend from claims indicated allowable. Thus any rejections of dependent claims 4, 6, 8, 10, 12, 14-15, 17-18, 20-21, 23, 25, 27-28, 30-31, and 72 made under 35 U.S.C. 103(a) have not been maintained. The remaining 35 U.S.C. 103(a) rejections of claims 1, 3, 5, 9, 13, 16, 19, 22, 24, 26, 29, 48-50, 52-55, 57-61, 73-74, and 82 have been maintained and are included in the Grounds of Rejection below.

It is hoped that this more specific description of the status of the claims alleviates any uncertainty as to which claims remain rejected on which grounds and which rejections have been withdrawn. It appears much of the uncertainty arose from the presence of the dependent claims to those claims now indicated allowable. In addition, any grounds of rejection not included below has been withdrawn. As such, any arguments drawn to rejections which are now withdrawn will not be addressed below as they are now moot.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is substantially correct. The amendment filed in response to the Office Action dated January 16, 2001 also cancelled claim 51.

(6) *Issues*

The appellant's statement of the issues in the brief is substantially correct.

Appellant's brief presents arguments relating to non-entry of the Amendment for Appeal. This issue relates to petitionable subject matter under 37 CFR 1.181 and not to appealable

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subject matter. See MPEP § 1002 and § 1201. Contrary to the argument by the applicant, the amendment does not place the claims in better condition for appeal because it raises the issue of new matter. Hence, the amendment has not been entered.

(7) *Grouping of Claims*

The rejection of groups 1) claims 1, 5, 9, and 71 2) claims 2, 4, 6, 8, 10, 12, 14, 15, 17, 18, 20, 21, 23, 25, 27, 28, 30, 31 and 72 3) claims 48, 49, 50, 52, 53, 54, 55, 57, and 73 4) claims 74 and 82 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

Appellant's brief includes a statement that claims 3, 7, 26, 11, 13, 16, 19, 22, 24, 29, 56, 58, 59, 60, 61, and 75 all stand or fall together separately because appellant's brief includes a statement that these claims do not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) *ClaimsAppealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

6,129,166	Sueshinge et al.	10-2000
5,730,891	Karpoff et al.	3-1998
4,926,768	Magda	5-1990

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4,062,430

Momberg

12-1977

(10) *Grounds of Rejection*

The following ground(s) of rejection are applicable to the appealed claims:

Claims 48-61, 73-75 and 82 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In Claim 48, line 5 recites, as amended, "...said at least one front wheel and said at least one rear wheel rotating about axes positioned on said base..." (emphasis added). The claim before amendment was drawn to *axles* of said front and rear wheels positioned on said base. The change from claimed axles to axes constitutes new matter. There is not support in the specification for this change. In addition, the claim is an apparatus claim and while a claimed axle has a physical structure, which further limits the apparatus, an axis is simply an imaginary line and not a physical structure. Likewise, new independent claim 74 claims in lines 4-6, "...said at least one front wheel and said at least one rear wheel rotating about axes positioned on said base..." In addition, claim 56 changes "axles" to "axes."

Claims 1, 3, 5, 9, 13, 16, 22, 24, 26, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karpoff et al. (5730891), in view of Sueshinge et al. (6129166) and Magda (4926768).

With respect to claims 1 and 3, Karpoff et al. teaches an undercarriage (see Figure 1) for supporting a welder (PS) on a base which has a top surface parallel to a ground surface. This undercarriage also has two front wheels (14, 16) and two rear wheels (20, 22) rotatably secured to a rear axle (24) which are also of greater radius than the front wheels (see Figure). Karpoff et al. does not teach a front axle for the front wheels, a push bar, the center of gravity of the welder being between the front and rear axles, or that the axles are spaced at less than about three times the sum of the radii of the front and rear wheels. Although Karpoff et al. does not teach that the center of gravity of the welder being between the front and rear axles (because Karpoff does not teach a front axle), Karpoff et al. does teach an undercarriage where the center of gravity of the welder would be between the rear axle and the front casters. Although Karpoff et al. does not teach that the axles are spaced at less than about three times the sum of the radii of the front and rear wheels (because Karpoff does not teach a front axle), Karpoff et al. does show in Figure 1 that the rear axle and front casters are spaced at less than about three times the sum of the radii of the front and rear wheels.

Sueshinge et al. teaches a four-wheeled cart (see Figures 1 and 2) having front and rear wheels (2R,L and 3R,L) rotatably attached to front and rear axles (44 and 28). Sueshinge et al. teaches that the cart has extended handles (9R,L), similar to those disclosed by the applicant but for the push bar connecting the left and right side handles. In addition, although not specifically disclosed, Figure 1 shows that the axles are spaced at less than about three times the sum of the radii of the front and rear wheels.

Magda teaches a cart (see Figures 1, 2) similar to that taught by Karpoff et al. and Sueshinge et al. including a push bar (84), where the radius of the rear (68) wheels is greater than

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that of the front (26) wheels (Column 5, lines 13-15). Magda also shows in Figure 1 that the rear axle and front casters are spaced at less than about three times the sum of the radii of the front and rear wheels.

Karpoff et al., Sueshinge et al., and Magda are analogous art because they are from the same field of endeavor, which is a wheeled cart. It would have been obvious to modify Karpoff et al. by attaching front wheels by an axle because it is a functional equivalent of the caster-type wheels used. It would have been obvious to modify Karpoff by using a push bar because Karpoff teaches that the undercarriage "with an appropriate handle to move the welder and undercarriage manually between locations (see Column 1, lines 15-16)."

With respect to claim 5, Karpoff et al. teaches, as seen in Figure 1, that there are side flanges (70) extending downwardly and to which axle 24 is attached.

With respect to claim 9, Karpoff et al. teaches front wheels positioned rearwardly of a front edge and rear wheels positioned forwardly of a rear edge (see Figure 1).

With respect to claim 13, Sueshinge et al. teaches a segmented bar, including a base section, a middle section, and a handle section (see Figure 1). Sueshinge et al. does not teach that the handle section is perpendicular to the ground surface but it would be obvious to do so for ease of handling. Karpoff et al. and Sueshinge et al. are analogous art because they are from the same field of endeavor, which is a wheeled cart. It would be obvious to use the bar of Sueshinge et al. on the cart of Karpoff et al. because Karpoff teaches that the undercarriage should transport the welder with ease and have a handle to move the undercarriage and welder manually (see Column 1, lines 12-16).

With respect to claims 16, the push bar of Magda could also be used as a lift bar (see Figure 1). Karpoff et al. and Magda are analogous art because they are from the same field of endeavor, which is a wheeled cart. It would have been obvious to modify Karpoff by using a lift bar because Karpoff teaches that the undercarriage is provided "with an appropriate handle to move the welder and undercarriage manually between locations (see Column 1, lines 15-16)."

With respect to claim 22, Karpoff et al. teaches a front flange in a bumper assembly (see Figure 1 and Column 7, lines 23-27).

With respect to claim 24, Karpoff et al. teaches a base at least equal in length and width to a welder (see Figure 1).

With respect to claim 26, although none of the references explicitly teach that a side flange has three axle openings in it, the number of openings would obviously be dependent only upon the number of axles required. However, combining the teachings of rear and front wheels attached to a base by an axle (Sueshinge et al.) with the teaching of a push bar attached to a base (Magda) would lead one ordinary skill in the art to modify the base for all three to be attached to the base by means of three separate axles, each axle requiring a hole in the base.

With respect to claim 29, the cart of Karpoff et al. may certainly be tilted about the rear wheels to a slight enough degree that the center of gravity of the welder would still fall between the rear and front axles.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Karpoff et al. (5730891), in view of Sueshinge et al. (6129166) and Magda (4926768), and further in view of Momberg (4062430).

Karpoff et al., Sueshinge et al., and Magda teach the undercarriage as described with respect to claim 1 above. None of these references teaches a hook arrangement secured to a push bar.

Momberg teaches a hook arrangement secured to a push bar (see Figures 1 and 4). Karpoff et al., Sueshinge et al., Magda and Momberg are analogous art because they are from the same field of endeavor, which is a pushable, wheeled carrier. It would have been obvious to modify Karpoff et al. by having a hook on the push bar "around which may be wound or looped the electric cord for storing the latter when the appliance is not in use (Momberg, abstract)."

Claims 48-50, 52, 54, 57, 61, and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karpoff et al. (5730891), in view of Magda (4926768).

With respect to claims 48-50, 52, 54, and 74, Karpoff et al. teaches an undercarriage (see Figure 1) for supporting a welder (PS) on a base that has a top surface parallel to a ground surface. This undercarriage also has rotatably secured to its base (12), two front wheels (14, 16) and two rear wheels (20, 22). The rear wheels are rotatably attached by mean of an axle (24) and are also of greater radius than the front wheels (see Figure 1). Karpoff et al. does teach an undercarriage where the center of gravity of the welder would be between the rear axle and the front casters and that the rear axle and front casters are spaced at less than about three times or less than about two times the sum of the radii of the front and rear wheels. Karpoff et al. does not teach a push bar.

Magda teaches a cart (see Figures 1, 2) similar to that taught by Karpoff et al. including a push bar (84), where the radius of the rear (68) wheels is greater than that of the front (26)

wheels (Column 5, lines 13-15). Magda also shows in Figure 1 that the rear axle and front casters are spaced at less than about three times the sum of the radii of the front and rear wheels.

Karpoff et al. and Magda are analogous art because they are from the same field of endeavor, which is a wheeled cart. It would have been obvious to modify Karpoff by using a push bar because Karpoff teaches that the undercarriage "with an appropriate handle to move the welder and undercarriage manually between locations (see Column 1, lines 15-16)."

With respect to claim 57, Karpoff et al. teaches front wheels positioned rearwardly of a front edge and rear wheels positioned forwardly of a rear edge (see Figure 1).

With respect to claim 61, the push bar of Magda could also be used as a lift bar (see Figure 1). Karpoff et al. and Magda are analogous art because they are from the same field of endeavor, which is a wheeled cart. It would have been obvious to modify Karpoff by using a lift bar because Karpoff teaches that the undercarriage is provided "with an appropriate handle to move the welder and undercarriage manually between locations (see Column 1, lines 15-16)."

With respect to claims 73 and 82, the cart of Karpoff et al. may certainly be tilted to a slight enough degree that the center of gravity of the welder would still fall between the rear and front axles.

Claims 53, 55, and 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karpoff et al. (5730891), in view of Magda (4926768), further in view of Sueshinge et al. (6129166).

Karpoff et al. and Magda et al. teach the undercarriage as described with respect to claim 48 above. Karpoff et al. does not teach that the front wheel is attached by means of an axle.

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Sueshinge et al. teaches a four-wheeled cart (see Figures 1 and 2) having front and rear wheels (2R,L and 3R,L) rotatably attached to front and rear axles (44 and 28). Karpoff et al., Sueshinge et al., and Magda are analogous art because they are from the same field of endeavor, which is a wheeled cart. It would have been obvious to modify Karpoff et al. by attaching front wheels by an axle because it is a functional equivalent of the caster-type wheels used.

With respect to claims 53 and 55, although neither Karpoff nor Sueshinge et al. teaches that the wheels are attached to a spindle, it would be obvious to use a spindle instead of an axle as the two are functional equivalents.

With respect to claims 58 and 59, Sueshinge et al. teaches a brake mechanism (Column 8, lines 28-44), in the form of a drum brake. This braking mechanism is a functional equivalent of the brake plate mechanism claimed. Karpoff et al. and Sueshinge et al. are analogous art because they are from the same field of endeavor, which is a wheeled cart. It would have been obvious to modify Karpoff et al. to include a braking mechanism because this would allow one to transport such a cart with a heavy welder, with ease.

With respect to claim 60, Sueshinge et al. teaches a segmented bar, including a base section, a middle section, and a handle section (see Figure 1). Sueshinge et al. does not teach that the handle section is perpendicular to the ground surface but it would be obvious to do so for ease of handling. It would be obvious to use the bar of Sueshinge et al. on the cart of Karpoff et al. because Karpoff teaches that the undercarriage should transport the welder with ease and have a handle to move the undercarriage and welder manually (see Column 1, lines 12-16).

(11) Response to Argument

Applicant argues with respect to the rejection under 35 U.S.C. 112, first paragraph, that rotation of an object about an axis is known. This point is moot as it is irrelevant to the fact that there is no support in the specification for the axes as claimed specifically in the apparatus (to be further explained by example below). The applicant additionally argues with respect to the rejection under 35 U.S.C. 112, first paragraph, that support can be found on page 16, lines 14-16 of the specification, which describe the center of gravity of the welder as being positioned on or between the central axis of the front and rear wheels. Although this portion of the specification happens to mention central axes of the front and rear wheels, it does not provide sufficient basis to overcome the rejection. The specification is lacking support for the specifics of the claimed axes and a general reference to axes in the specification does not support these specifics. The specification does not describe where the axes are positioned on the base, presumably because the axes are imaginary lines and thus not positioned on the base at all. Likewise, the specification does not support the *axes* being spaced apart less than about three times the sum of the radii of the front and rear wheels, because it instead supports the *axles* being positioned as such. As the limitations of claim 74 are nearly the same, the same arguments would apply. Hence the rejection under 35 U.S.C. 112 first paragraph of claims 48-61, 73-75 and 82 stands. The applicant goes on to argue the “interchangeability of the terms ‘axles’ and ‘axes’” which would be in error as an axis is more broadly defined than an axle and may encompass things other than an axle.

With respect to claim 1, applicant first argues that Figure 1 of Karpoff (5730891) cannot be relied upon to teach that the rear axle and front casters are spaced at less than about three times the sum of the radii of the front and rear wheels. In support of this argument, applicant cites In re Wright 193 USPQ 332, 335 (CCPA 1977) as referred to in Hackerson-Halberstadt, Inc. v. Avia Group International, Inc., 55 USPQ2d 1487, 1491 (CAFC 2000). In re Wright details the finding that "Absent any written description in the specification of quantitative values, arguments based on measurement of a drawing are of little value." This is in the context of actual quantitative measurement of drawings to teach that a chime length of roughly $\frac{1}{2}$ to 1 inch for a whiskey barrel. Similarly, the HHI v. Avia case concerned "precise proportions" of elements in a drawing. This argument is not persuasive because *Hockerson v. Avia* establishes a different fact pattern than in the present case, and additionally is concerned with the prosecution history and definition of terms throughout.

The figure of Karpoff is not relied upon to teach specific dimensions, proportions, or measurements, but instead a rather broad and general relation between parts of an undercarriage - a spacing of "*less than about* three times the sum of the radii of the front and rear wheels" (emphasis added). This relation is broad by the use of "*less than about*" and also because the radii, and thus the sum of the radii, of the front and rear wheels is not claimed or specified. Thus, there are no specific quantitative values being derived from the drawings and so this argument is not persuasive. To further support that Karpoff teaches a spacing of less than about three times the sum of the radii, the applicant has submitted measurements of the radii and the spacing which show a spacing of 70.75mm as compared to three times the sum of the radii at 67.5mm. Although the examiner does not rely on such measurements as the grounds for rejection, the

measurements do meet the broad limitation of "less than about three times" the sum of the radii.

The examiner also notes that although Sueshinge et al. and Magda were cited as meeting the limitation of a spacing of less than about three times the sum of the radii, the teaching of these references is not similarly argued but to broadly assert that the references do not meet the limitation.

With respect to claim 3, applicant submits that the wheel radius is 2.6:1, which is so close to the prior art range that one skilled in the art would have expected it to have the same properties. *Titanium Metals Corp. v. Banner*, 227 USPQ 773.

With respect to claim 13, applicant argues that the angles of the handle would not have been obvious. However, the broad range of 15-70 degrees encompasses most any reasonable angle of handle and surely that of Sueshinge et al., even if the reference does not specifically teach a handle angle.

With respect to claim 16, the mere fact that applicant calls a handle feature a "lift bar" does not patentably distinguish it from the push bar of Magda as the "lift bar" is defined by the function it may be used for, the same function the push bar of Magda may be used for. As the two features perform the same function and have no readily discernable difference in that respect, the teaching of Magda would meet the limitation.

With respect to claim 26, applicant argues that use of such flanges having a particular number of openings is simply not obvious. As stated in the rejection above, the number of openings would be dependent only upon the number of axles required. However, combining the teachings of rear and front wheels attached to a base by an axle (Sueshinge et al.) with the teaching of a push bar attached to a base (Magda) would lead one ordinary skill in the art to modify the base for all three to be attached to the base by means of three separate axles, each axle requiring a hole in the base. Thus a proper combination of the references meets this limitation.

With respect to claim 29, the cart of Karpoff et al. is capable of being tilted such that the center of gravity remains between the rear and front axles, which meets the limitation regardless of whether Karpoff et al. discloses the center of gravity, a property which the welder of Karpoff et al. inherently possesses

Applicant argues that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Lastly in response to applicant's argument that Magda is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). Particularly, applicant states that Magda is not drawn to a device used to support and move a welder. This is merely an intended use as the application does not positively claim a welder as being mounted or attached to the cart claimed. In this case, the references cited all pertain to wheeled carts.

With respect to applicant's argument regarding claim 19 that Magda is nonanalogous art please see the response above. Applicant additionally argues that Momberg is also nonanalogous art. Momberg is relied upon to teach the storage of an electrical cord of a vacuum cleaner, which is reasonably pertinent to the applicant's problem concerning how to store the electrical cord of an undercarriage with a welder.

With respect to applicant's arguments regarding claims 48 and 74, that Karpoff et al. does not teach the spacing claimed, please see the response to the same argument regarding claim 1 above. With respect to applicant's argument regarding claim 61, concerning the lift bar feature, please see the response to claim 16 above. Also with respect to the argument that Magda is nonanalogous art please see the response above.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Colleen Cooke
December 16, 2003

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